

REMARKS

The dependence of claims 58 and 59 is corrected.

The withdrawal of claims 33-49 is acknowledged.

The rejection of independent claims 50, 62, and 66 under 35 USC 102 for anticipation by the cited Kato, et al. patent is traversed on the basis of previously presented claim 66 that the system changes molten magnesium alloy from a molten state into a semi-solid state for flow substantially throughout the die cavity. Claims 50 and 62 are amended to present more clearly the semi-solid state of the magnesium alloy in the die cavity.

The Kato, et al. patent neither discloses nor suggests semi-solid magnesium alloy in the die cavity. Instead, column 6, lines 48-50, of the patent teach differently that:

Then, the injection ram is pushed to drive the screw 10, thereby injecting the stored, completely molten metal into the [die] cavities 47.

Completely molten metal in the die cavities of the patent is not the semi-solid magnesium alloy of the claims. The rejection fails on this difference.

The claimed invention does not become obvious from the molten metal in the die cavities of the patent by the cooling of the die-cavity metal into a solid state as an inherent part of the die casting process of the patent whether or not the metal of the patent passes through a semi-solid state in the die as it cools from the molten state in which it is injected to the solid state in which it is removed from the die. In the die casting disclosed in the patent, as also usual, the molten metal cools fastest to a solid by contact with the die while interior parts are less cool and, thus, in a different state than solid necessarily including molten as being injected. The result of some parts of the die casting being solid while other parts are still molten is a less desirable casting as described previously in this prosecution and, therefore, not described again.

Reconsideration and allowance are, therefore, requested.

Respectfully submitted,

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